ABSTRACT

An object of the present invention is to provide a compound semiconductor light-emitting device having side surfaces of large surface area to improve the efficiency for outwardly transmitting the emitted light. Another object of the present invention is to provide a technology capable of easily forming the side surfaces with large surface area without using a cutting tool and without the need of taking a trouble to impart mechanical damage.

The inventive compound semiconductor light-emitting device has a light-emitting layer, on a substrate, wherein at least a part of a substrate portion of the device side surface has recessed portions in a side direction of the device. The inventive method of producing compound semiconductor light-emitting device comprises the steps of: (a) forming a compound semiconductor layer including a light-emitting layer of an n-type or p-type compound semiconductor on a wafer that serves as a substrate, (b) arranging a negative electrode and a positive electrode at predetermined positions for passing a drive current through the light-emitting layer, (c) forming a separation zone for separating the individual light-emitting devices, (d) perforating many small holes linearly in the wafer that serves as the substrate along the separation zone, and (e) dividing the wafer into individual light-emitting devices along the separation zone.